

REMARKS

Applicants have carefully reviewed this Application in light of the Final Office Action mailed November 28, 2007. Claims 1-8, 10-12, 33, and 34 are pending in this Application. Claims 13-32 were previously cancelled without prejudice or disclaimer due to an election/restriction requirement. Additionally, Claim 9 was previously cancelled without prejudice or disclaimer. Claims 1-8, 10-12, 33, and 34 stand rejected under 35 U.S.C. § 103(a). Claims 1 and 8 have been amended to further define features of Applicants' invention. Applicants respectfully request reconsideration and favorable action in this case.

Rejections under 35 U.S.C. § 103

Claims 1-8, 10-12, 33, and 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,608,717 issued to June I. Medford et al. ("*Medford*").

Medford discloses an optical coherence microscope for application in the field of developmental biology. (Col. 5, lines 8-15). The microscope is designed to image cells below the surface of living tissue in situations where light scattering in the specimen would render it opaque to a conventional or confocal light microscope. (Col. 6, lines 58-61).

Claim 1, as amended, recites a direct-to-digital holography system comprising "a reference mirror located at a waist of the reference beam and oriented relative to the beam splitter and illumination lens such that the reference beam is reflected from the reference mirror to the beam splitter in order to eliminate the need for a reference objective on a reference arm."

Claim 8, as amended, recites a method for acquiring a complex image in a direct-to-digital holography system comprising the step of "reflecting the portion of the reference beam from a reference mirror located at the waist of the reference beam and oriented relative to the beam splitter and illumination lens such that the reference beam is reflected from the reference mirror to the beam splitter, the reference mirror eliminating the need for a reference objective on a reference arm."

Applicants respectfully submit that the cited reference fails to disclose every element of Applicants' invention as amended. *Medford* fails to teach at least a direct-to-digital holography system comprising "a reference mirror located at a waist of the reference beam and oriented relative to the beam splitter and illumination lens such that the reference beam is reflected from the reference mirror to the beam splitter in order to eliminate the need for a reference objective on a reference arm," as recited by amended Claim 1. Additionally, *Medford* fails to teach a method for acquiring a complex image in a direct-to-digital holography system including the step of "reflecting the portion of the reference beam from a reference mirror located at the waist of the reference beam and oriented relative to the beam splitter and illumination lens such that the reference beam is reflected from the reference mirror to the beam splitter, the reference mirror eliminating the need for a reference objective on a reference arm," as recited by amended Claim 8.

The Examiner nowhere alleges acknowledges that *Medford* discloses eliminating "the need for a reference objective on a reference arm." Instead, the Examiner has argued with respect to Claims 1 and 8 (prior to their amendment herein) that "although *Medford* may not expressly state functional use of the elements ... a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art to patentably distinguish the claimed invention from the prior art. As presently claimed, there is no structural difference." Although Applicants' disagree with the Examiner's contention that Claims 1 and 8, prior to amendment herein, are not patentable over *Medford*, Applicants have amended each of Claims 1 and 8 to specifically recite a structural relationship among the claimed elements.

For at least the reasons set forth above, *Medford* fails to disclose the recited limitations and cannot render obvious Claims 1 and 8. Given that Claims 2-7 depend from Claim 1, and Claims 10-12, 33, and 34 depend from Claim 8, Applicants respectfully submit that Claims 2-7, 10-12, 33, and 34 are allowable. As such, Applicants respectfully request that the Examiner withdraw the rejections under 35 U.S.C. § 103(a) and allow Claims 1-8, 10-12, 33, and 34.

Information Disclosure Statement

Applicants would like to bring to the Examiner's attention that Applicants filed an Information Disclosure Statement on August 1, 2006. Applicants respectfully request that the Information Disclosure Statement be considered and cited in the examination of the above-referenced application. Applicants attach a copy of the Information Disclosure Statement and PTO Form 1449 filed August 1, 2006 for the Examiner's convenience and a copy of Express Mail receipt and the postcard receipt evidencing receipt by the Patent Office.

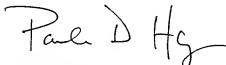
CONCLUSION

Applicants appreciate the Examiner's careful review of the application. Applicants have now made an earnest effort to place this case in condition for examination and allowance. For the foregoing reasons, Applicants respectfully request reconsideration of the application and allowance of Claims 1-8, 10-12, 33, and 34, as amended.

Applicants believe there are no fees due at this time; however, the Commissioner is hereby authorized to charge any fees necessary or credit any overpayment to Deposit Account No. 50-2148 of Baker Botts L.L.P.

If there are any matters concerning this Application that may be cleared up in a telephone conversation, please contact Applicants' attorney at 512.322.2581.

Respectfully submitted,
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